Abstract
The present work describes in summarized form the design methodology of the hydraulic systems, considering the fundamental parameters of the hydraulic drive, the stages in which the same one must be made are: preliminary calculation and verification, selecting such in correspondence with the calculations of the moments, operating forces and speeds in the mechanisms as well as the algorithm of design of the hydraulic systems. The calculations of the hydraulic systems are of great importance in the world of the design of the agricultural machinery since they serve for the correct selection of all the hydraulic devices, determination of the diameter of the pipe, etc, is for that reason that the calculations, as it regulates become in two stages: First stage: The preliminary calculation is made (it includes the simplified static calculation and the selection of the components). Second stage: The verification is made (it includes the modeling of the components and system with the analysis of the stationary regime and the dynamics of the system)

Keywords
hydraulic drives, design, methodology, simulation, optimization